ABSTRACT OF THE DISCLOSURE

A catalyst comprising 0.1-99.7% by weight of at least one alumina matrix; 0.1-80% by weight of at least one globally non dealuminated Y zeolite with a lattice parameter of more than 2.438 nm, a global SiO₂/Al₂O₃ mole ratio of less than 8, and a framework SiO₂/Al₂O₃ mole ratio of less than 21 and more than the global SiO₂/Al₂O₃ mole ratio; 0.1-30% by weight of at least one group VIII metal and/or 1-40% by weight of at least one group VIB metal (% oxide); 0.1-20% by weight of at least one promoter element selected from the group formed by boron and silicon (% oxide); 0-20% by weight of at least one group VIIA element; 0-20% by weight of phosphorous (% oxide); 0.1-20% by weight of at least one group VIIB element, useful for hydrocracking processes, especially at low pressures of 7.5 to 11 MPa.